

REMARKS

Claims 1-15 are pending in this application. All of the pending claims are rejected. Claim 1 is currently amended. Reconsideration is requested.

Although not part of a formal rejection, the Office states, in response to the previous Amendment, that the newly added limitations “volatile storage” and “volatile memory” cannot be found in the specification. Note that the first sentence in the second paragraph of page 3 states “after a member or a group of members has registered with the GCKS, the GCKS stores the particular registration SA, data SA and re-key SA for that member or group in volatile memory.”

Claim 1 was subject to objection because of a redundant occurrence of the word “in,” which is now removed.

Claims 1-5 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jari in view of Mualem. The Office concedes that Jari fails to suggest “in response to detection of corruption of the security association in volatile storage, where the corruption is caused by an event other than power failure, employing the copy of the security association in non-volatile storage to update the security association in volatile storage.” However, the Office suggests that Mualem teaches that limitation at [0010] and step (110) of Figure 2. Applicant respectfully traverses.

Mualem fails to teach the recited limitation in [0010]

The Office states that the limitation quoted above is taught by Mualem in paragraph [0010]. That paragraph states, in full:

Data may be transferred to a network adapter from an IHA and vice versa using a direct memory access (DMA) device or any device that transfers data into memory. When transferring to the network

adapter, the DMA or other device may request control of an input/output (I/O) bus and read a sequence of data from memory on the IHA and write this data into memory on the network adapter. When transferring data to the IHA, the DMA or other device reads data from the network adapter and transfers this data to the IHA. This procedure of transferring data from the IHA to the network adapter may become complicated if the SA data becomes corrupted while it is being transferred to the network adapter by the IHA. Although the claimed subject matter is not limited to addressing the following, corruption could occur if, for example, the network adapter or the local bus is “under stress” while the SA is being transferred. Stress may occur when there is more data or information to be received in the network adapter then (sic) the network adapter has the capability to timely process. There are several ways that a corrupted SA may result in problems.

Notably absent from that paragraph is any mention that an SA in volatile memory is backed up to non-volatile storage, and any mention of employing the copy of the SA in non-volatile storage to update the security association in volatile storage. Applicant therefore requests either a more detailed explanation or withdrawal of the rejection.

Mualem fails to teach the recited limitation in step (110) of Figure 2

Step (110) is “adapter does not transfer the SA to encoder/decoder, adapter signals completed SA transfers and sets integrity error indicator.” In other words, step (110) is about the integrity of the transfer of the SA. However, that is not the recited limitation. For example, claim 1 recites “in response to detection of corruption of the security association in volatile storage, where the corruption is caused by an event other than power failure, employing the copy of the security association in non-volatile storage to update the security association in volatile storage.” Similarly, claim 10 recites “means for copying at least a portion of the second table to the first table in response to detection of corruption of the first table, where the corruption is

caused by an event other than power failure.” Applicant therefore requests either a more detailed explanation or withdrawal of the rejection.

Mualem fails to teach storing a copy of the SA in both volatile and non-volatile memory

Applicant has reviewed the Mualem reference and is unable to find any indication of whether the illustrated memories are volatile or non-volatile. In Figure 1 Mualem illustrates a transfer between a memory (38) and a memory (26). Since claim 1 recites employing the copy of the security association **in non-volatile storage** to update the security association **in volatile storage**, Mualem must teach that limitation in order to justify the Office’s position. Applicant submits that the Office has impermissibly assumed that memory (38) is non-volatile and memory (26) is volatile.

Mualem fails to teach storage of a backup SA in any type of memory

The Office erroneously assumes that a backup SA is transferred from Mualem’s memory (38, Fig. 1) to memory (26). However, paragraph [0019] teaches that IHA (12) generates security associated (32) which is stored in memory (38). Consequently, security association (32) cannot possibly be a backup of security association (32’) in memory (26). Note that claim 1 recites “storing **a copy of the security association** in non-volatile storage.” (emphasis added). Similarly, claim 10 recites “a non-volatile memory including a second table for **storing at least a portion of the first table**.” (emphasis added)

Withdrawal of the rejections of claims 1 and 10 under 35 U.S.C. 103(a) as being unpatentable over Jari in view of Mualem is requested for each of the reasons stated above.

Claims 2-5 and 11-15 are dependent claims which further define the invention, and which are allowable for the same reasons as their respective base claims.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung in view of Jari and further in view of Mualem. The Office relies on Mualem for the same teachings outlined above, and consequently independent claim 6 distinguishes the cited combination by reciting "storing a copy of the security association in a non-volatile memory, and also by reciting "retrieving the copy of the security association from the non-volatile memory in the event that the security association becomes unavailable to the server because of corruption of the security association in volatile memory caused by an event other than power failure, and employing the copy of the security association in non-volatile memory to update the security association in volatile memory. Claims 7-9 are dependent claims which further define the invention recited in claim 6, and which are allowable for the same reasons. Withdrawal of the rejections of claims 6-9 is therefore requested.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited. Should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicants' Attorney at the number listed below so that such issues may be resolved as expeditiously as possible.

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Respectfully Submitted,

/Holmes W. Anderson/
Holmes W. Anderson, Reg. No. 37,272
Attorney/Agent for Applicant(s)
McGuinness & Manaras LLP
125 Nagog Park
Acton, MA 01720
(978) 264-6664